

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-37 are pending in the application, with claims 1, 10, 19 and 28 being independent. Applicant amends claims 1, 10 and 19-28 to further clarify features of the claimed subject matter. The original specification and drawings support these claim amendments at least at page 5 and Figure 7. Therefore, claims 1-37 are presented and directed to subject matter of the original disclosure.

CLAIM REJECTIONS OF 35 U.S.C. § 103

Claims 1-37 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,544,842 to Smith et al. (hereinafter “Smith”) in view of U.S. Patent No. 6,820,038 to Wetzer et al. (hereinafter “Wetzer”) and further in view of U.S. Patent No. 5,793,632 to Fad et al. (hereinafter “Fad”). Applicant respectfully traverses the rejection.

Independent Claim 1

Without conceding the propriety of the rejection and only to advance the prosecution of this application, Applicant amends **independent claim 1** to further clarify features of the claimed subject matter. Amended claim 1 now recites a method for estimating man-hours and costs to complete regulatory certification of a modification to a system, the method comprising (emphasis added):

entering one or more components of the system involved in
the modification;

based on the entered one or more components of the system, automatically identifying other components of the system that may be involved in the modification;

determining which of the automatically identified other components of the system to include in the modification;

identifying which of the entered components and the included other components involved in the modification require regulatory certification activity based on the modification;

determining at least one scope of work needed to complete regulatory certification for each of the entered and included other components;

wherein determining the other components to include in the modification, identifying which of the entered components and the included other components that require regulatory certification, and determining at least one scope of work further comprises:

answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the other components; and

generating an estimate of man-hours and costs needed to complete regulatory certification based on all of the determined scopes of work.

Applicant respectfully submits that no such method is disclosed, taught or suggested by Smith and/or Wetzer and/or Fad, alone or in combination.

The combination of Smith in view of Wetzer and further in view of Fad fails to disclose, teach, or suggest answering questions to prompt a user to consider at least one comprehensive relationship between components

Smith describes an apparatus and method for converting a three pilot aircraft to a two pilot aircraft cockpit. *See*, abstract. More specifically, the apparatus described by Smith includes a master caution system that monitors all critical panel warning systems. *See*, column 4, lines 21-22. Smith also describes that the conversion method involves no changes in the aircraft

systems, but primarily involves automating controls such as fuel, electrical, and environmental systems' controls for ease of operation by the two member crew. *See*, column 4, lines 29-33. Smith performs this conversion method to allow the certification of the modified aircraft under their original certification rules. *See*, column 3, lines 61-67. Thus, the conversion apparatus and method of Smith is limited to modifications that do not require any supplemental-type certification outside of the original CAR-4B rules. *See*, column 3, lines 5-40 and column 4, lines 16-20.

Additionally, Applicant submits that Wetzer fails to compensate for the deficiencies of Smith. Wetzer describes a method and system for component provisioning that supports the grouping of components to realize efficiencies in component provisioning. *See*, abstract. Wetzer further describes that the method comprises identifying components for performance of at least one of maintenance, repair, and overhaul of an item of equipment. *See*, column 1, lines 47-49. Wetzer also describes establishing at least one kit of components comprising a group of one or more components that is gathered to support the aggregation of installation activities or otherwise grouped to support integration of multiple maintenance tasks associated with at least one of maintenance, repair, and overhaul. *See*, column 1, lines 49-55.

Further, Applicant submits that Fad fails to compensate for the deficiencies of Smith and Wetzer. Fad describes a system and a process of cost estimating to provide a split of labor and material expensed for a given project. *See*, column 3, lines 14-16. Fad describes a process including the steps of defining a system to be estimated as required by a selected parametric estimating model and entering the necessary values. The process further describes entering financial factors and then executing a parametric model to produce cost estimates and calculate appropriate output values. Later, a determination is then made using the entered financial factors

of the labor cost and the material cost, following which an output report is generated. Finally, the parameters can be revised and the scheduling model can be re-executed again as required. *See*, column 3, lines 36-49.

In contrast, Applicant's amended claim 1 recites, "*wherein determining the other components to include in the modification, identifying which of the entered components and the included other components that require regulatory certification, and determining at least one scope of work further comprises: answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the included other components.*" These recited features are not disclosed, taught or suggested in Smith, Wetzer, and/or Fad.

Thus, Smith, Wetzer and Fad, either alone or in combination (assuming for the sake of argument that they can be combined), do not disclose, teach or suggest "*wherein determining the other components to include in the modification, identifying which of the entered components and the included other components that require regulatory certification, and determining at least one scope of work further comprises: answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the included other components,*" as recited in Applicant's amended claim 1. Accordingly, Applicant respectfully submits that the evidence relied upon by the Office does not support the rejections made under §103, and Applicant respectfully requests the § 103 rejection of claim 1 be withdrawn.

Dependent claims 2-9 depend from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejections of these claims be withdrawn.

Smith and Wetzer are not combinable because Smith teaches away from Wetzer

The Office has failed to establish a *prima facie* case of obviousness because Smith teaches away from Wetzer. The Office cites Wetzer for describing “entering one or more components of the system involved in the maintenance, repair, and overhaul of equipment; automatically identifying other components of the system that may be involved in the maintenance, repair, and overhaul of equipment; determining which of the automatically identified other components of the system to include in the maintenance, repair, and overhaul of equipment.” *See*, page 3 of the Office Action mailed April 14, 2008. Additionally, the Office states that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith to include these steps as taught by Wetzer such that efficiencies may be realized in replacing or modification components together.” *See*, page 3 of the Office Action.

Wetzer describes a method of identifying components for performance of at least one maintenance, repair, and overhaul of equipment, including establishing at least one kit of components. *See*, abstract. Smith, however, teaches away from using a “kit of components” such as those described in Wetzer because the “kit of components” is expensive, the results are “questionable,” and a “kit of components” is unnecessary because the Boeing 727 aircraft is already “one of the safest aircraft in the history of the aviation industry.” For example, the following excerpts are reproduced to assist the Office in appreciating Smith and Wetzer.

Smith, column 2, lines 30-49 (emphasis added)

Several companies in the aviation industry, recognizing the potential for cost cutting and savings in the conversion of three pilot aircraft to two pilot aircraft, **have proposed development programs which would lead to the certification and fabrication of a "kit of components" comprising computers and software which, when installed on the aircraft, will convert the aircraft to a two pilot aircraft.** These efforts have been directed primarily at the Boeing 727 aircraft since over 700 of these aircraft are in

active use in the world's aircraft inventory. **However, the success of these efforts is questionable, generally because the development and certification costs involved with the "kits of components" and their associated installation costs are substantial. The cost barriers to success have deterred the vital and much needed modification** of the three pilot air crew trijet Boeing 727 to a two pilot air crew aircraft, **rendering the aircraft much less competitive to operate than the more modern aircraft in use today.** Yet the 727 remains the safest of all second generation aircraft and is one of the safest aircraft in the history of the aviation industry over all generations of turbojets.

Wetzer, column 1, lines 44-55 (emphasis added)

In accordance with the invention, a method for component provisioning or issuance supports the grouping of components to realize efficiencies in component provisioning. The method comprises identifying components for performance of at least one of maintenance, repair, and overhaul of an item of equipment. **At least one kit of components is established for the item of equipment. The kit comprises a group of one or more components that is gathered to support the aggregation of installation activities or otherwise grouped to support integration of multiple maintenance tasks associated with at least one of maintenance, repair, and overhaul.**

The above-quoted passages demonstrate that Smith specifically contemplated and dismissed the option of using a “kit of components.” Thus, Smith explicitly teaches away from any combination involving a “kit of components,” such as those described in Wetzer. Accordingly, the combination of Smith and Wetzer is improper, and Applicant respectfully requests the § 103 rejection of this claim be withdrawn.

Independent Claim 10

Without conceding the propriety of the rejection and only to advance the prosecution of this application, Applicant amends **independent claim 10** to further clarify features of the

claimed subject matter. Amended claim 10 now recites a computer-based apparatus for estimating man-hours and costs to complete regulatory certification of a modification to a system, the apparatus comprising (emphasis added):

means for entering one or more components of the system involved in the modification;

means for automatically identifying other components of the system that may be involved in the modification based on the entered one or more components;

means for determining which of the automatically identified other components of the system to include in the modification;

means for identifying which of the entered components and the included other components involved in the modification require regulatory certification activity based on the modification;

means for determining at least one scope of work needed to complete certification for each of the entered and included other components;

wherein the means for determining the other components to include in the modification, the means for identifying which of the entered components and the included other components that require regulatory certification, and the means for determining at least one scope of work further comprises:

means for answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the included other components; and

means for generating an estimate of man-hours and costs needed to complete regulatory certification based on all of the determined scopes of work.

Applicant respectfully submits that no such apparatus is disclosed, taught or suggested by Smith and/or Wetzer and/or Fad.

The combination of Smith in view of Wetzer and further in view of Fad fails to disclose, teach, or suggest answering questions to prompt a user to consider at least one comprehensive relationship between components

With regard to independent claim 10, and as mentioned above with respect to claim 1, the cited references fail to disclose, teach or suggest “*wherein the means for determining the other components to include in the modification, the means for identifying which of the entered components and the included other components that require regulatory certification, and the means for determining at least one scope of work further comprises: means for answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the included other components.*” Thus, independent claim 10 is allowable over the cited references for at least similar reasons as claim 1. Accordingly, Applicant respectfully submits that claim 10 is not obvious over Smith in view of Wetzer and further in view of Fad, and Applicant respectfully requests the Examiner withdraw the rejection of this claim.

Dependent claims 11-18 depend from independent claim 10 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejections of these claims be withdrawn.

Independent Claim 19

Without conceding the propriety of the rejection and only to advance the prosecution of this application, Applicant amends **independent claim 19** to further clarify features of the claimed subject matter. Amended claim 19 now recites a computer-readable storage medium comprising computer-executable instructions for estimating man-hours and costs to complete regulatory certification of a modification to a system, the computer-readable storage medium comprising (emphasis added):

a component configured to receive entry of one or more components of the system involved in the modification;

a component configured to automatically identify other components of the system that may be involved in the modification based on the entered one or more components;

a component configured to allow a user to determine which of the automatically identified other components of the system to include in the modification;

a component configured to identify which of the entered components and the included other components involved in the modification require regulatory certification activity based on the modification;

a component configured to determine at least one scope of work needed to complete regulatory certification for each of the entered and included other components;

wherein the component configured for determining the other components to include in the modification, the component configured for identifying which of the entered components and the included other components that require regulatory certification, and the component configured for determining at least one scope of work further comprises:

a component configured for answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the other included components; and

a component configured to generate an estimate of man-hours and costs needed to complete regulatory certification based on all of the determined scopes of work.

Applicant respectfully submits that no such computer-readable storage medium is disclosed, taught or suggested by Smith and/or Wetzler and/or Fad.

The combination of Smith in view of Wetzler and further in view of Fad fails to disclose, teach, or suggest answering questions to prompt a user to consider at least one comprehensive relationship between components

With regard to independent claim 19, and as mentioned above with respect to claim 1, the cited references fail to disclose, teach or suggest “*wherein the component configured for*

determining the other components to include in the modification, the component configured for identifying which of the entered components and the other included components that require regulatory certification, and the component configured for determining at least one scope of work further comprises: a component configured for answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the included other components.” Thus, independent claim 19 is allowable over the cited references for at least similar reasons as claim 1. Accordingly, Applicant respectfully submits that claim 19 is not obvious over Smith in view of Wetzner and further in view of Fad, and Applicant respectfully requests the Examiner withdraw the rejection of this claim.

Dependent claims 19-27 depend from independent claim 19 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejections of these claims be withdrawn.

Independent Claim 28

Without conceding the propriety of the rejection and only to advance the prosecution of this application, Applicant amends **independent claim 28** to further clarify features of the claimed subject matter. Amended claim 28 now recites an estimating system for estimating man-hours and costs to complete regulatory certification of a modification to a system, the estimating system comprising (emphasis added):

a database configured to store an estimating application program and related information;

a server coupled to the database, the server comprising a processor configured to generate a interface tool by executing the stored estimating application program; and

one or more computer-based user devices in communication with the server over a network connection, the one or more computer-based user devices comprising:

a user interface device configured to present the interface tool, and allow a user to enter one or more components of the system involved in the modification;

wherein the estimating application program comprises:

means for automatically identifying other components of the system that may be involved in the modification based on the entered one or more components and related information stored in the database;

means for determining which of the automatically identified other components of the system to include in the modification;

means for identifying which of the entered components and the included other components involved in the modification require regulatory certification activity based on the modification;

means for determining at least one scope of work needed to complete regulatory certification for each of the entered and included other components;

wherein the means for determining the other components to include in the modification, the means for identifying which of the entered components and the included other components that require regulatory certification, and the means for determining at least one scope of work further comprises:

means for answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the included other components; and

means for generating an estimate of man-hours and costs needed to complete regulatory certification based the determined scopes of work.

Applicant respectfully submits that no such estimating system is disclosed, taught or suggested by Smith and/or Wetzer and/or Fad.

The combination of Smith in view of Wetzer and further in view of Fad fails to disclose, teach, or suggest answering questions to prompt a user to consider at least one comprehensive relationship between components

With regard to independent claim 28, and as mentioned above with respect to claim 1, the cited references fail to disclose, teach or suggest “*wherein the means for determining the other components to include in the modification, the means for identifying which of the entered and the included other components that require regulatory certification, and the means for determining at least one scope of work further comprises: means for answering questions to prompt a user to consider at least one comprehensive relationship between the entered components and the included other components.*” Thus, independent claim 28 is allowable over the cited references for at least similar reasons as claim 1. Accordingly, Applicant respectfully submits that claim 28 is not obvious over Smith in view of Wetzer and further in view of Fad, and Applicant respectfully requests the Examiner withdraw the rejection of this claim.

Dependent claims 29-37 depend from independent claim 28 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant respectfully requests the § 103 rejections of these claims be withdrawn.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably distinguishes over the cited references. For all of these reasons, Applicant respectfully requests the §103(a) rejection of these claims should be withdrawn.

CONCLUSION

Claims 1-37 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Office is requested to contact the undersigned attorney to resolve the issue.

Respectfully submitted,

Lee & Hayes, PLLC

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By: /Kristina M. Kuhnert/
Kristina Kuhnert
Reg. No. 62,665

Shirley Lee Anderson
Reg. No. 57,763